

We Claim:

1. A method for separating particles having different dielectric constants comprising the steps of:

- 5 separating the particles in a medium having a dielectric constant chosen to enhance the sensitivity of the discrimination between the particles, and
changing the medium to one having a dielectric constant which causes faster separation between the particles.

- 10 2. The method for separating particles of claim 1 wherein the sensitivity is enhanced by utilizing a medium having a dielectric constant which is closer to one species of particle than the other.

- 15 3. The method for separating particles of claim 1 wherein the sensitivity is enhanced by utilizing a medium where the difference in dielectric constant between the medium and the first particle is substantially the same as the difference in dielectric constants between the particles.

- 20 4. The method for separating particles of claim 1 wherein the sensitivity is enhanced by utilizing a medium where the difference in dielectric constant between the medium and the first particle is less than the difference in dielectric constants between the particles.

- 25 5. The method for separating particles of claim 1 wherein the sensitivity is enhanced by utilizing a medium having a dielectric constant which is substantially equal to the dielectric constant of one of the particles.

- 30 6. The method for separating particles of claim 1 wherein the sensitivity is enhanced by utilizing a medium having a dielectric constant differing from the dielectric constant of at least one of the particles by 10% or less.

7. The method for separating particles of claim 1 wherein the sensitivity is enhanced by utilizing a medium having a dielectric constant differing from the dielectric constant of at least one of the particles by 5% or less.